

Effects of Childhood Weight Bullying on College Students' Current Psychological Well-Being

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Abstract

Previous studies have shown that weight stigma and bullying can have detrimental effects on a person's psychological well-being. Depression, self-esteem, loneliness, and perceived stress were measured as a result of personal experiences with bullying, specifically concerning weight stigma and weight based bullying, in comparison to other forms of bullying (e.g., being shy, having freckles). University students self-reported about times when they experienced bullying using an online survey and also completed measures of current depression, self-esteem, loneliness, and perceived stress. Consistent differences in current psychological well-being were observed when comparing responses from students who had been bullied to those from students who had never been bullied. However, no significant differences were found when comparing students who reported being bullied for different reasons. These findings suggest that bullying for any reason can be detrimental to several aspects of young adults' mental health, including depression, self-esteem, loneliness, and perceived stress.

Keywords: body weight, bullying, depression, self-esteem, loneliness, perceived stress

Levels of obesity have been on the rise in adults, adolescents, and in young children, tripling over the past 30 years (National Center for Chronic Disease Prevention and Health Promotion, 2010). According to the National Center for Chronic Disease Prevention and Health Promotion, in 2005-2006, 67% of adults were overweight, and 34% were obese. Among adolescents ages 12-19, 18% were overweight, among children ages 6-11, 15% were overweight, and among ages 2-5, 11% were overweight (National Center for Chronic Disease Prevention and Health Promotion, 2010). One major reason to be concerned about the rise in rates of obesity and overweight is the additional health risk associated with excess weight (TeenHealth, 2007). Childhood obesity can lead to numerous health concerns including cardiovascular disease, sleep apnea, joint problems, diabetes, heart problems, and stroke, as well as many other issues (National Center for Chronic Disease Prevention and Health Promotion, 2010). Childhood obesity may cause this generation of children to be the first in many years expected to have a shorter life span than their parents (Oshlansky, Passaro, Hershow, Layden, Canres, Brody, Hayflick, Butler, Allison, & Ludwig, 2005).

However, beyond the physical side effects, childhood obesity can also result in psychological concerns such as depression and decreased psychological well-being (Robinson, 2006) The increase in adolescent obesity is exacerbated by the social isolation that is a result of the constant attacks on their psychosocial health (Robinson, 2006). Being overweight or obese often leads to weight-based stigma, which can then lead to bullying and victimization (Puhl & Latner, 2007). The constant barrage of negative interactions with peers can cause depression in those who are the victims (Adams & Bukowski, 2008). Adams and Bukowski (2008) showed that peer victimization for those who were obese lead to more depressive symptoms than for those who were not obese. It was also indicated that peer victimization could lead to a change in

body mass, again for those who were obese but not for those who were not obese, with those who were bullied gaining more weight than those who were not bullied. Obesity was shown to be a risk factor for victimization (Adams & Bukowski, 2008). Victimization can also result in lower self-esteem, increased stress, and poor social interactions. The increased risk of being targeted and the negative consequences that bullying can have on someone who is overweight, provides evidence for the hypothesis that being bullied for one's weight could be more detrimental to psychological well-being than being bullied for other reasons.

Social marginalization, or the idea that adolescents view their peers as different and thus exclude them, is often experienced by children who are overweight (Robinson, 2006). Social marginalization and exclusion should be cause for concern (Robinson, 2006). There are several negative ramifications that stem from the attachment of the stigma onto the victim, such as the victim being less liked by peers (Puhl & Latner, 2007). The label could also result in the victim having fewer friends by being rejected by peers (Puhl & Latner, 2007). Social interactions and relations to peers are important in development. Experiencing such negative treatment at such a young age could have dramatic effects on a child's psychological well-being, which includes depression and self-esteem, as well as a negative effect on emotional well-being. Furthermore, it has been shown that peer victimization in the years of adolescence could lead to a change in depression and body mass over a period of time (Adams & Bukowski, 2008), with both raising as a result of the peer victimization.

However, while some studies have shown that obesity and being overweight is correlated with high amounts of depression, other studies have shown that obesity does not always lead to low levels of self-esteem. The article written by Wardle and Cooke (2005) was a meta-analysis of previous studies concerning self-esteem and depression in overweight youth. Wardle and

Cooke (2005) stated that depression may be found in obese youth as a result of the rejection, as opposed to the obesity itself. These studies showed that children who are overweight and obese are subjected to social rejection, discrimination, and negative stereotyping, however, while obesity did tend to be correlated with high levels of depression, it was not always correlated with low self-esteem (Wardle & Cooke, 2005).

While it might be assumed that this weight stigma is only present in the school environment and only inflicted by peers, it has been shown that the labeling is far more pervasive than that. Weight stigma comes from many sources including family, social environment, work environment (for those old enough to work), service providers (e.g. salespersons, waiters, waitresses), educators, as well as complete strangers (Cossrow, Jeffery & McGuire, 2001; Puhl & Latner, 2007). The Cossrow et. al study consisted of mainly of adults, however the implications for the adults could be seen for obese children at an older age. Many members of these different communities (family, work, and so on), may carry the belief that people who are not at a healthy body weight are assumed to be self-indulgent, ugly, selfish, lazy, stupid, as well as other negative attributes, and the acceptance of these negative attitudes as being true lead peers to tease and bully overweight peers (Puhl & Latner, 2007). This weight bias has been documented among adults and children alike.

Peer aggression can be exhibited through the act of bullying. Bullying is a form of aggression in which a certain behavior is performed with the intention to harm (Robinson, 2006). Bullying is a repeated behavior based on a power imbalance with the more powerful individual attacking the less powerful individual (Robinson, 2006). Bullying comes in two primary forms. One form is overt victimization, which is the physical act of aggression (e.g., pushing and

hitting) and the second form is relational victimization, which uses social connections as a way to cause harm to another (e.g., exclusion from social activities; Robinson, 2006).

One of the most common reasons found to explain why bullies act the way they do is the personal lack of self-esteem within the bully (Frisén, Jonsson, & Persson, 2007). Frisé and colleagues (2007) also reported that many bullies had once been victims of bullying themselves. The fact that children who are being bullied are in turn, becoming bullies themselves, can be seen as a defense mechanism against the aggressive behavior they have been receiving. Being a victim of bullying in younger years can lead students to have a negative view of themselves in their adolescent years, so the aggressive behaviors make them more prone to be negatively affected by the constant teasing (Agliata, Tasntless-Dunn & Renk, 2007).

Bullying can happen for a number of reasons including perceived differences in behavior, or ethnic, racial, or cultural backgrounds (Horowitz, Vessey, Carlson, Bradley, Montoya, McCullough, & David, 2004). Weight bullying is a sub-form of bullying which focuses on people being either overweight or underweight. Furthermore, victims tend to be teased for their physical appearance and other body parts (Kowalski, 2000), which could include their weight status. Two of the most frequently reported reasons for bullying are facial features and weight (Cash, 1995). Cash's (1995) study included only female college students, though, who reported that most of their experiences with bullying occurred in their adolescent years. It was found that appearance-related teasing was the most recalled form of criticism. Results indicated the women who had been teased about their facial features or weight were more likely to have unrealistic and dissatisfied body images because of the teasing that they had experienced (Cash, 1995). Being verbally bullied in childhood can lead to a greater level of body dissatisfaction and lower global self-worth and self-esteem in adulthood (Sweetingham & Waller, 2008; Fox & Farrow,

2009). It was also shown that verbal abuse could lead to greater social anxiety as well as shame, which could result in lower psychological well-being overall (Sweetingham & Waller, 2008). The overall results of the Sweetingham & Waller (2008) study indicated that those who felt social anxiety and shame as a result of teasing had high body dissatisfaction overall.

The current study aimed to examine the different reasons that someone could be the victim of bullying (e.g., having a big nose, having lots of freckles, being shy, being overweight, being Mexican), and to examine the differences among young adults who had experienced each type of bullying in terms of their current depression loneliness, perceived stress, and self-esteem. It was hypothesized that being bullied for being overweight would result in higher levels of depression, loneliness, perceived stress and would also result in lower levels self-esteem when compared to the depression, loneliness, perceived stress and self-esteem levels for those bullied for other reasons. It was also hypothesized that those who were bullied for any reason would have higher levels of depression, loneliness, perceived stress and lower levels self-esteem when compared to those who were not bullied at all.

Method

Participants

Students were recruited for the study through the use of a research pool for a total of 552 participants (352 women (64%), 194 men (35%), and 6 unspecified (1%), ($M_{\text{age}} = 19.1$, age range = 17-26) Participants received research credit in their respective classes. The 5 participants who were over the age of 27 were excluded.

Measures

Depression. Two separate scales were used to assess depressive symptoms at different points in the study. The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff,

1977) is a 20 item, multiple choice self report survey which measures depressed mood, feelings of guilt, worthlessness, and helplessness among psychomotor symptoms and sleep disturbances. The Likert scale design ranges from 0 to 3, with 0 being rarely or none of the time, 1 being some or a little of the time (1 to 2 days), 2 indicates occasionally or a moderate amount of time (3 to 4 days), and 3 indicates most or all of the time (5 to 7 days). The CES-D has an internal consistency .87 (Roberts, Andrews, Lewinsohn, & Hops, 1990).

The Beck Depression Inventory (BDI-II; Beck, Steer, & Brown, 1996): The BDI-II is a 21 item multiple-choice, self-report questionnaire which measures the severity of depression over the past two weeks. The Likert scale design ranges from 0 to 3 for each item, with the high end representing greater severity. The alpha for the BDI-II is .93 (Whisman, Perez, & Ramel, 2000).

Self-esteem. Rosenberg's Self-Esteem Scale (SES; Rosenberg, 1965) is a ten question survey that asks the participants to express the degree to which they agree or disagree with certain statements that describe feelings about themselves. The participants are asked to rate themselves on certain characteristics on a scale from 1 to 4, with 1 being strongly agree, 2 being agree, 3 being disagree, and 4 being strongly disagree. The Rosenberg Self-Esteem Scale has an internal consistency of .88 (Robins, Hendin, & Trzesniewski, 2001).

Perceived stress. The Perceived Stress Scale (PSS; Cohen, 1983) is a four question survey which asks participants to indicate how often they have felt a certain way over the past month using a 5 point scale (0 = never, 1 = almost never, 2 = sometimes, 3 = fairly often, 4 = very often). The internal reliability is .72 (Cohen, Kamarck, & Mermelstein, 1983).

Loneliness. The UCLA Loneliness Scale (ULS; Russell, 1996) is a 20 item questionnaire which instructs participants to rate how often they have felt the way described in each item (e.g.

How often do you feel unhappy doing so many things alone?, How often do you feel you have nobody to talk to?). The participants responded using a scale of 1 to 4, with endpoints of "I never feel this way" and "I often feel this way." The internal consistency ranges from .89 to .94.

Bullying experiences. The Experiences with Past Bullying Questionnaire (EBQ; Newman, Holden, & Delville, 2005) is a 21 item questionnaire that assesses the timing and frequency of experiences with bullying. It also assesses the types of bullying experienced (physical, verbal, or emotional). The questions are ranked using a 5-point Likert scale design which ranged from never to very frequently. The test-retest reliability is a .81.

Bullying reasons. Following the EBQ, an additional item was added to assess possible reasons for bullying experiences. This item allowed for open-ended responses to the question "Why do you think that you were targeted by bullies?" Bullying reasons were then coded by trained research assistants according to categories developed by the research team.

Demographics. A number of demographic variables were also collected, such as gender, age, race, and class standing. Data concerning perceived weight in Elementary School, Middle School, and High School was also collected, along with current weight. Both of these indicators of past and current weight status were self-reported.

Procedure

Students were asked to sign up for the study using an online system. The participants were asked to fill out a number of surveys for research credits. The study took place over two semesters with two sets of students. Participants who took the Prescreening Survey in the Fall 2008 semester completed the BDI-II as an assessment of depressive symptoms, while those in the Spring 2009 completed the CES-D to measure depression. In addition to taking the BDI-II or the CES-D and reporting demographic data, participants also reported their experiences with

bullying (during elementary, middle, or high school), and also self-reported what weight status they were at each time, as well as their weight now. The participants gave open ended, personal, reasons for being bullied, which were coded by three lab assistants into different categories. Coding and reconciliation continued until a high level of interrater reliability was reached (Cohen's Kappa greater than .70). The overall data was used to assess differences in their perceived stress, loneliness, self-esteem, and depression.

Results

Amounts of Bullying Experienced

An ANOVA revealed no significant differences for the amount of bullying that participants experienced overall when comparing reports from those who were bullied for different reasons. Counter to the hypothesis, it is not the case that participants who reported being bullied because of their weight reported experiencing more frequent bullying overall.

Gender and Amounts of Bullying Experienced

Among those who were bullied, 35% were men ($n= 193$), and 65% were women ($n=351$). There was a significant gender difference in the amount of bullying reported in elementary School, $F(1,542)=9.42, p < .05$. When reporting about elementary school, men ($M= 2.09, SD=1.14$) reported being bullied more than women ($M= 1.81, SD= 1.04$). There were no significant gender differences reported for middle school and high school.

Bullying Reasons and Psychological Well-Being

One-way Analysis of Variances (ANOVAs) were used to examine the levels of self-esteem, perceived stress, and loneliness for the different reasons for bullying (bullied-overweight, not bullied, bullied-appearance, and bullied-other). Significant ANOVAs were further explored using the Tukey HSD post-hoc test to determine specifically which groups

reported significant differences. The means for depression, self-esteem, loneliness, and perceived stress are represented in Table 1.

Self-esteem. There was a significant difference in self-esteem seen when comparing those who were in the not bullied group, bullied-appearance group (other than weight), and those who were bullied-other (not bullied for weight or appearance) group, $F(3,542)=5.17, p < .05$. The results of the Tukey HSD procedure indicated that those in the bullied-other group ($M= 3.10, SD= .47$) had significantly lower levels of self-esteem when compared to those in the not bullied group ($M= 3.26, SD= .48$). The Tukey test also indicated that those in the bullied-appearance ($M=3.08, SD= .50$) group also had significantly lower levels of self-esteem than those in the not bullied group. No significant differences in self-esteem were observed for those in the bullied-overweight group ($M= 3.11, SD= .44$) compared to the not bullied group, bullied-other group, or bullied-appearance group. These findings do not support the original hypothesis that those who were bullied for being overweight would have lower self-esteem compared to those who were never bullied or those who were bullied for other reasons, however those who were bullied for appearance or other reasons did report lower self-esteem levels than the not bullied group.

Perceived stress. There was a significant difference between the bullied-overweight group and the not bullied, bullied-appearance, and bullied-other groups on levels of perceived stress, $F(3,542)=7.78, p < .05$. The Tukey test indicated that there was a significantly higher level of perceived stress for the bullied-appearance group ($M=2.77, SD= .70$) and the bullied-other group ($M= 2.71, SD= .75$) when compared to the not bullied group ($M=2.42, SD= .70$). There was no significant difference seen between the bullied-appearance, bullied-other, or not bullied group compared to the bullied-overweight group ($M= 2.51, SD= .65$) in the Tukey test.

These findings do not support the original hypothesis, which stated that those who were bullied for being overweight would have more perceived stress than those of the other groups.

Loneliness. Again, the bullied-overweight group, the not bullied group, the bullied-appearance group (other than weight), and the bullied-other group there was a significant difference in loneliness, $F(3,541)=6.11, p < .05$. A significant difference was seen in levels of loneliness, with the bullied-other ($M= 1.80, SD= .50$) and bullied- appearance ($M=1.88, SD= .51$) groups having significantly higher levels of loneliness than those in the not bullied group ($M=1.65, SD=.48$). Those in the bullied-overweight group ($M=1.71, SD= .38$) did not significantly differ from those in the bullied-other, bullied-appearance, or not bullied groups. Not in support of the original hypothesis, those who were bullied-overweight did not show significantly higher levels of loneliness when compared to the not bullied group, or the bullied-appearance and bullied-other groups.

Depression. Z-scores for depression were computed in order to combine the scores from the CES-D and the BDI-II for dual analysis. Using a one-way ANOVA, it was found that for overall depression scores, there was a significant difference between those who were in the bullied-overweight group, the not bullied group, bullied-appearance group, and the bullied-other group, $F(3,563)= 10.32, p < .05$. A Tukey Post Hoc test indicated a significant difference in overall depression between the bullied-other group ($M= .15, SD= 1.03$), the bullied-appearance group ($M= .25, SD= 1.16$), and the not bullied group ($M= -.28, SD= .84$), with the bullied-other group and bullied-appearance group having significantly higher levels of depression, but not with the bullied-overweight group ($M= -.05, SD= .65$). This finding did not give support to the hypothesis, that those who were bullied for their weight would show higher levels of depression than those who were not bullied at all.

Discussion

Contrary to expectations, the results indicated that being bullied for one's weight is not worse than being bullied for other reasons. The results do support findings from previous research that bullying may have negative consequences on psychological well-being. Overall, no significant difference was found between the different bullying groups when compared to each other, however, when all the groups were compared to the no bullied group there were significant differences in depression, self-esteem, perceived stress, and loneliness, such that those who identified themselves as being overweight or underweight, generally had higher levels of depression, loneliness, and perceived stress, with lower levels of self-esteem. In every analysis, the bullying-overweight group's mental health reports fell in between those of the participants who had been bullied for appearance or other reasons, who were consistently worse off, and those of the no bullying group, who were consistently better off.

A possible reason that being bullied for your weight may not be as detrimental as being bullied for another reason is the inherent ability to change one's weight. In modern day there are numerous diets, and a gym in every town, which makes losing weight an achievable goal. If a person has a large nose, plastic surgery comes with a great monetary cost, and also the recovery time is something that not all persons can afford to take off of work. Personality traits were also factored into the non-appearance bully reasons, and personality is not something that is readily changeable, like weight is. Being shy or "nerdy" is not a trait that would be changed at the gym, which is a possible reason why those who were bullied for reasons outside of their weight, had higher scores for depression, loneliness, and perceived stress, and lower scores for self-esteem when compared to those who were bullied for being overweight. Another possible reason for weight bullying being less detrimental is the acceptance of one's weight. Some obese persons

accept their weight through accepting that it is just how their body is, or that it is genetics that has lead them to be overweight. The acceptance of one's body for what it is could make it easier for the person to deflect negative comments made about their weight status.

One limitation of the current investigation was that many of the surveys and measures were self-report. This was a confound because the responses could be viewed as highly subjective. The identification of current weight and height was self-report and some participants may have misreported due to their embarrassment of their weight (whether they were overweight or underweight), or for fear of being judged because of their weight. Also, it was difficult to understand what some participants meant when trying to code the data (e.g. "I was small", could be that the personal was short and underweight, or maybe just short). The coders may have inferred a reason other than what the participant was trying to report. Another major limitation was that participants were asked to reflect many years into their past. This could be viewed as an issue because the reports become more subjective. It may have been difficult for some participants to recall exact reasons, since for most of the participants, elementary school and middle school ended over 10 years ago. Also, the different forms of bullying were reported as open-ended and had to be coded by members of the research lab, which left some room for interpretation by the coders. As mentioned earlier, some participant responses were not explicit, and called for the coders to make certain judgments. Each coder could have coded different responses in different ways, for example, coding "I was small" as being short, or as being underweight.

Studies in the future should be conducted longitudinally, and include less retrospective data. A study conducted longitudinally could start with a group of elementary school children and follow them through high school, or at least into middle school. This would allow for more

accurate responses of bullying reasons, which could lead to more significant results. It would also be interesting to see how bullying changes from elementary school into middle and high school (e.g. does it go from mainly appearance reasons to personality reasons?). Also, future studies should focus more on the feelings now, as opposed to asking the participants to think over 10 years into their past. It could be difficult to remember specific details from the past, and some participants might not have been able to respond accurately, thus using measures that would inquire about present feelings and experience could be more accurate.

Research could also incorporate questions about what could have been done to help the victims cope with or feel better about the bullying they were experiencing. If participants reported ways to relieve the depression, self-esteem issues, perceived stress, or loneliness they felt, then that information could be channeled into schools and other communities where victimization is an issue. The current study assessed past experiences with bullying but failed to inquire about ways to help those who have experienced the victimization.

Finally, because of its recent explosion, cyberbullying could also be included in future studies. The growing use of cell phones and social networking websites, bullying is taking a technological turn. While this study did not inquire about cyberbullying, future studies should take the new phenomena into account, and perhaps do a study strictly about the effects felt from cyberbullying.

The current study showed that experiencing bullying can result in higher levels of depression, loneliness, and perceived stress and lower levels of self-esteem many years later. The results indicate that all bullying needs to be taken seriously and forms of intervention need to be investigated. The current study also shows how events from childhood might carry through into

adulthood. This implies that early intervention is necessary, and could prevent negative effects of the victimizations on psychological well-being.

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Table 1

Overall Means for Depression, Self-Esteem, Loneliness, and Perceived Stress by Group

	Bullied-Overweight		Bullied-Appearance		Bullied-Other		Not Bullied	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Depression	-.05	.65	.25	1.16	.15	1.03	-.28	.84
Self-Esteem	3.11	.44	3.08	.50	3.10	.47	3.26	.48
Loneliness	1.71	.38	1.88	.51	1.80	.50	1.65	.48
Perceived Stress	2.51	.65	2.77	.70	2.71	.75	2.42	.70